RICKETTSIA FELIS OUTER MEMBRANE PROTEIN

ABSTRACT OF THE DISCLOSURE

The present invention is directed to isolated nucleic acid molecules encoding Rickettsia felis outer membrane proteins (R. felis omp). Expression vectors and host cells comprising the nucleic acid molecules are also provided, as well as methods for increasing or decreasing the expression of R. felis omp in host cells. The invention further provides a method of screening a substance for the ability of the substance to modify R. felis omp function, and a method for isolating other R. felis omp molecules. DNA oligomers capable of hybridizing to the nucleic acid molecule encoding the R. felis omp are provided, which can be used to detect R. felis omp in a sample. An isolated R. felis omp is also provided. Antibodies specific for the protein, and fragments thereof, are provided, as are compositions comprising the protein and a compatible carrier. The subject invention further provides a method of preventing R. felis infections by R. felis present in a carrier host, and a method of reducing R. felis infection of a carrier host.